

WHAT IS CLAIMED IS:

1. A recording apparatus comprising:

a carriage for enabling a recording head for recording on a recording medium to reciprocate in
5 the direction intersecting the conveying direction of said recording medium, said carriage reciprocating by driving power transmitted from driving means to the drive transmitting portion of said carriage;

10 a guide shaft having a substantially circular lateral section for guiding said carriage to reciprocate in said intersecting direction; and

a bearing portion provided for said carriage to slide along said guide shaft, said bearing
15 portion being installed substantially on either side in the direction of said reciprocal traveling, wherein

said bearing portion is structured to be in contact with said guide shaft at two points on the
20 upstream side and downstream side in the conveying direction of said recording medium with respect to the direction of the vertical line running through the center of said guide shaft, and

each angle formed in the directions of the
25 tangential line on the outer circumference of said guide shaft and the vertical line at each of the contact points between said bearing portion and

said guide shaft is set to make the friction force generated between said guide shaft and said bearing portion larger than the force generated at the time of said carriage being accelerated to
5 cause said bearing portion to slide in the circumferential direction of said guide shaft.

2. A recording apparatus according to Claim 1, wherein the structure is arranged to make the
10 angle, of each of said angles, formed in the directions of tangential line and vertical line on the outer circumference of said guide shaft at said contact point on the downstream side in said conveying direction smaller than the angle formed
15 in the directions of tangential line and vertical line on the outer circumference of said guide shaft at said contact point on the upstream side in said conveying direction.

20 3. A recording apparatus according to Claim 1, further comprising:
a guide rail for regulating the rotation of said carriage around said guide shaft, while guiding said carriage to reciprocate in said intersecting
25 direction, wherein

each of said angles is set in accordance with the weight of said carriage, the gravitational

position of said carriage with respect to said guide shaft, the distance between said bearing portion portions themselves installed substantially on either side of said carriage, respectively, the friction coefficient between said bearing portion and said guide shaft, the position of said drive transmitting portion with respect to said guide shaft, and the acceleration and deceleration given to said carriage.

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4. A recording apparatus according to Claim 3, wherein of each of said angles, the angle formed in the directions of tangential line and vertical line on the outer circumference of said guide shaft at said contact point on the downstream side in said conveying direction is made smaller than the angle formed in the directions of tangential line and vertical line on the outer circumference of said guide shaft at said contact point on the upstream side in said conveying direction.

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5. A recording apparatus according to either one of Claim 1 to Claim 4, wherein said recording head is an ink jet recording head for forming images on said recording medium by discharging ink liquid droplets from nozzles of said recording head.

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